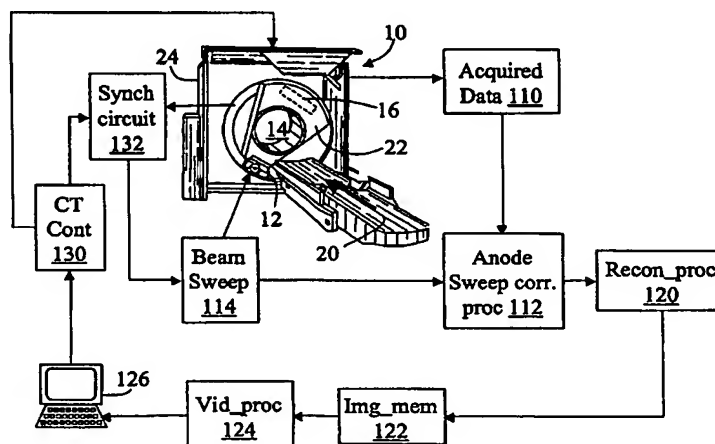




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- (54) Title: CYLINDRICAL X-RAY TUBE FOR COMPUTED TOMOGRAPHY IMAGING**



- (57) Abstract:** A computed tomography imaging system includes an x ray tube (12, 212) that injects an x ray conebeam into an examination region (14). The x ray tube (12, 212) includes a rotating cylindrical anode (30, 230, 330, 430) having a target outer surface region. The cylindrical anode (30, 230, 330, 430) rotates about a longitudinally aligned cylinder axis (32). Electrons are accelerated toward a selected spot on the target outer surface region of the cylindrical anode (30, 230, 330, 430). Electrostatic or electromagnetic deflectors (64, 68) sweep the selected spot back and forth across the target outer surface region of the cylindrical anode (30, 330, 430). The imaging system further includes a rotating gantry (22) that revolves the x ray tube (12, 212) about the examination region (14) around a rotation axis that is parallel to the cylindrical axis, and an x-ray detector (16) arranged to detect x rays after said x rays pass through the examination region (14).



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